

## **WHAT IS CLAIMED IS**

1. An encoded symbology scanner for simultaneously scanning encoded symbology from a number of articles upon which symbology has been encoded, comprising;

(a) support means for the scanner for receiving one or more articles upon

5 which symbology has been encoded;

(b) illumination means disposed to simultaneously illuminate all of the encoded symbology carried by all articles that are together upon said support means;

(c) imaging means disposed to simultaneously image all of the encoded symbology when received together by said support means; and

10 (d) decoding means for decoding the encoded symbology images.

2. The encoded symbology scanner of claim 1 wherein;

(a) said support means includes transparent window means disposed to simultaneously receive a plurality of symbology encoded articles so that the encoded  
15 symbology may be disposed upon said window means and for illumination by said illumination means; and

(b) said imaging means includes a CCD camera means disposed and lensed to simultaneously capture an image of all of the encoded symbology.

20 3. The encoded symbology scanner of claim 2 wherein;

(a) said imaging means includes a plurality of said CCD camera means simultaneously operated but with each said CCD camera means disposed to capture only a portion of the encoded symbology;

(b) said decoding means functioning to decode the symbology for each of said portions and to assemble the so decoded symbology into a stream of decoded data.

4. The encoded symbology scanner of claim 3 wherein; there are four CCD camera means each disposed to capture a quarter of the encoded symbology.

5. The encoded symbology scanner of claim 4 wherein; the encoded symbology is different for each article with encoded symbology.

6. The encoded symbology scanner of claim 5 wherein; the articles to be encoded are test tubes or vials disposed in a predetermined array in a rack means.

7. An encoded symbology scanner for simultaneously scanning encoded symbology from a number of articles upon which symbology has been encoded, comprising;

(a) a support for the scanner for receiving one or more articles upon which symbology has been encoded;

(b) an illumination assembly disposed to simultaneously illuminate all of the encoded symbology carried by all articles that are together upon said support;

(c) an imaging device disposed to simultaneously image all of the encoded symbology when received together by said support; and

(d) a decoder for decoding the encoded symbology images.

8. The encoded symbology scanner of claim 7 wherein;

(a) said support includes a transparent window disposed to simultaneously receive a plurality of symbology encoded articles so that the encoded symbology may

5 be disposed upon said window and for illumination by said illumination assembly; and

(b) said imaging device includes a CCD camera disposed and lensed to simultaneously capture an image of all of the encoded symbology.

9. The encoded symbology scanner of claim 8 wherein;

10 (a) said imaging device includes a plurality of said CCD cameras simultaneously operated but with each said CCD camera disposed to capture only a portion of the encoded symbology;

(b) said decoder functioning to decode the symbology for each of said portions and to assemble the so decoded symbology into a stream of decoded data.

15

10. The encoded symbology scanner of claim 9 wherein; there are four CCD cameras each disposed to capture a quarter of the encoded symbology.

11. The encoded symbology scanner of claim 10 wherein; the encoded symbology  
20 is different for each article with encoded symbology.

12. The encoded symbology scanner of claim 11 wherein; the articles to be encoded are test tubes or vials disposed in a predetermined array in a rack.

13. A process for scanning encoded symbology from a number of articles upon which symbology has been encoded, comprising;

(a) positioning a plurality of articles upon which symbology has been encoded for simultaneous decoding;

5 (b) simultaneously illuminating all of the encoded symbology for all of such articles;

(c) simultaneously imaging all of the encoded symbology so disposed; and

(d) decoding the encoded symbology images.

10 14. The symbology scanning process of claim 13 including;

(a) providing and disposing a transparent window to simultaneously receive a plurality of symbology encoded articles; and

(b) simultaneously imaging means all of the encoded symbology for the  
15 articles with a CCD camera disposed and lensed to simultaneously capture an image of all of the encoded symbology.

15. The symbology scanning process of claim 14 including;

(a) employing a plurality of said CCD cameras to simultaneously image the  
20 encoded symbology but with each said CCD cameras disposed to capture only a portion of the encoded symbology;

(b) decoding the symbology for each of said portions and assembling the so decoded symbology into a stream of decoded data.

16. The symbology scanning process of claim 15 wherein; there are four CCD cameras each disposed to capture a quarter of the encoded symbology.

5 17. The symbology scanning process of claim 16 wherein; the encoded symbology is different for each article with encoded symbology.

18. The symbology scann process of claim 5 wherein; the articles to be encoded are test tubes or vials and are disposed in a predetermined array in a rack.

09027187-081001

10

15

20